

Claims

1. – 34. (canceled)

35. (currently amended) An isolated nucleic acid comprising a transcriptional unit for an immunogenic flavivirus antigen, wherein the transcriptional unit directs a host cell, after being incorporated therein, to synthesize the immunogenic antigen, and wherein the transcriptional unit comprises a prM signal sequence and a Kozak ribosomal binding sequence comprising GCCGCCGCC located at in a position -9 to -1 relative to a start codon that is effective for ribosome binding.

36. (previously presented) The nucleic acid of claim 35, wherein the flavivirus comprises yellow fever virus, dengue serotype 1 virus, dengue serotype 2 virus, dengue serotype 3 virus, dengue serotype 4 virus, St. Louis encephalitis virus, Japanese encephalitis virus, or a mixture of two or more thereof.

37. (previously presented) The nucleic acid of claim 35, wherein the antigen is a prM/M protein, an E protein, or both a prM/M protein and an E protein.

38. (previously presented) The nucleic acid of claim 37, wherein the antigen is both the prM/M protein and the E protein and wherein the host cell secretes subviral particles comprising the prM/M protein and the E protein.

39. (previously presented) The nucleic acid of claim 35 which is DNA.

40. (previously presented) The nucleic acid of claim 35, wherein the transcriptional unit further comprises a control sequence disposed appropriately such that it operably controls synthesis of the antigen.

41. (previously presented) The nucleic acid of claim 40, wherein the control sequence is the cytomegalovirus immediate early promoter.

42. (previously presented) The nucleic acid of claim 35, wherein the transcriptional unit further comprises a poly-A terminator.

43. (previously presented) A cell comprising the nucleic acid of claim 35.

44. (previously presented) The cell of claim 43, wherein the flavivirus comprises yellow fever virus, dengue serotype 1 virus, dengue serotype 2 virus, dengue serotype 3 virus, dengue serotype 4 virus, St. Louis encephalitis virus, Japanese encephalitis virus, or a mixture of two or more thereof.

45. (previously presented) The cell of claim 43, wherein the flavivirus antigen is a prM/M protein, an E protein, or both a prM/M protein and an E protein.

46. (previously presented) The cell of claim 45, wherein the antigen is both the prM/M protein and the E protein and wherein the cell secretes subviral particles comprising the prM/M protein and E protein.

47. (previously presented) A composition comprising the nucleic acid of claim 35 in a pharmaceutically acceptable carrier.

48. (previously presented) The composition of claim 47, wherein the flavivirus comprises yellow fever virus, dengue serotype 1 virus, dengue serotype 2 virus, dengue serotype 3 virus, dengue serotype 4 virus, St. Louis encephalitis virus, Japanese encephalitis virus, or a mixture of two or more thereof.

49. (previously presented) The composition of claim 47, wherein the antigen is a prM/M protein, an E protein, or both a prM/M protein and an E protein.

50. (previously presented) The composition of claim 49, wherein the antigen is both the prM/M protein and the E protein and wherein the cell secretes subviral particles comprising the prM/M protein and the E protein.

51. (previously presented) The composition of claim 47, wherein the nucleic acid is DNA.

52. (previously presented) The composition of claim 47, wherein the transcriptional unit further comprises a control sequence disposed appropriately such that it operably controls synthesis of the antigen.

53. (previously presented) The composition of claim 52, wherein the control sequence is the cytomegalovirus immediate early promoter.

54. (previously presented) The composition of claim 47, wherein the transcriptional unit further comprises a poly-A terminator.

55 – 68 (canceled)

69. (currently amended) The nucleic acid of claim 35, wherein the Kozak-ribosomal binding sequence is located from positions -9 to +4 in the transcriptional unit[.], and consists of the sequence GCCGCCGCCATGG, GCCGCCGCCATGC, or GCCGCCGCCATGT.

70. – 86. (canceled)